Carotid artery pseudo-pseudoaneurysm after excision of carotid body tumor

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A 37-year-old woman was referred for evaluation of a carotid body tumor. The patient gave a history of right neck fullness for several months before the mass was identified on physical examination during an evaluation for benign biliary disease. The lesion was initially diagnosed by computed tomography angiogram (CTA) and confirmed with duplex ultrasound imaging, which revealed a 4-cm vascular mass intimately associated with the internal and external carotid arteries.

She underwent surgical excision of this tumor as well as a modified radical lymph node dissection due to the presence of several enlarged nodes along the right jugular chain. A CTA of the head and neck was preformed postoperatively after the patient complained of a severe headache. This diagnosed a 2-cm pseudoaneurysm of the external carotid artery near the carotid bifurcation (*A*/Cover; *B*).

The patient underwent a second neck exploration, and the carotid arteries were intact with no evidence of hematoma or pseudoaneurysm. In the approximate location where the pseudoaneurysm had been seen on the CT scan, there was a small amount of clear fluid characteristic of lymph that was associated with soft, crescent-shaped gelatinous material that appeared to be proteinaceous. The fluid was aspirated, and the proteinaceous material was examined with fluoroscopy and found to be radiopaque (*C*). The volume of the fluid along with the crescent-shaped material approximated the size of the pseudoaneurysm.

DISCUSSION

There are reports of magnetic resonance angiography and duplex ultrasound imaging misidentifying structures as pseudoaneurysms,[1,2] but this is the first report, to our knowledge, of a false-positive CTA. The mechanism of contrast uptake in the surrounding soft tissues and fluid collections is unknown; however, it must involve a rapid transudative process to appear at the same time as the contrast in the arterial phase. A preoperative ultrasound examination might have been helpful in determining that the so-called pseudoaneurysm was a benign fluid collection with no arterial flow.

REFERENCES

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